



# WJU'SNEWIKNAQ

## WIND STRENGTH

### Q&A follow up from Community Meetings in December 2023

To ensure transparency with the community, we have compiled this document representing questions we received during our December 2023 Community meetings. For the Complete Q&A to date, please visit our website's Document Page [https://bearlakewind.com/project\\_documents](https://bearlakewind.com/project_documents).

Consultation is an active and ongoing process, please reach out if have any further questions or comments and feel free to email us anytime at [info@bearlakewind.com](mailto:info@bearlakewind.com).

Wind Turbines Energy Payback / CO2 Emissions	
<p>- Wind turbines are not 'green' and require a lot of CO2 emissions to manufacture, transport, construct, and operate. How do you justify their environmental impact?</p>	<p>While it's true that there are carbon emissions associated with the manufacturing, transportation, and construction of wind turbines, their operational phase is where they shine environmentally. Wind turbines produce clean, renewable energy without emitting greenhouse gases during electricity generation. Over their lifespan, the emissions associated with their manufacturing are offset by the significant reduction in CO2 emissions from traditional power sources. Some studies have pointed to an energy payback (CO2 off-set) of anywhere between 3 to 7 months depending on the technology, location, and site characteristics.</p> <ul style="list-style-type: none"> <li>• <b>Wind has a range of 5 to 26 grams of CO2-equivalent per kilowatt-hour.</b></li> <li>• <b>Natural Gas has a range of 437-758 grams CO2-equivalent per kilowatt-hour.</b></li> <li>• <b>Coal has a range of 675-1689 grams of CO2-equivalent per kilowatt-hour.</b></li> </ul> <p>Source(s): <a href="#">Comparative life cycle assessment</a> / <a href="#">Nordex Delta 4000 - LCA Report</a></p>
Blasting and Water Contamination Concerns	
<p>- The community has expressed concerns relating to blasting required for road building and foundation construction potentially causing water contamination to nearby wells, damaging foundations of houses near the project, and contamination to watercourses and wetlands. How are these concerns being addressed?</p>	<p>We understand and prioritize the community's concerns about blasting associated with road building and foundation construction. Rigorous safety measures will be implemented to mitigate potential risks. Pre-blast inspections are conducted, and residents will be informed well in advance. Our construction team adheres to best practices, ensuring the prevention of any harm to water sources or structures.</p> <p>To address specific concerns related to arsenic, radon, and uranium (ARU) impacts on waterways, it's crucial to note that these materials are naturally occurring across large parts of Nova Scotia, including areas with existing wind farms, such as South Canoe. Our geotechnical data and soil/bedrock samples collected at Bear Lake show no presence of arsenic, no acid-producing potential, and no uranium. This is not to say that these chemical elements are not present in the area, just that none have been identified during our geotechnical campaign to date.</p> <p>It's important to highlight that the biggest risks to human health from ARU occur through drinking water from drilled wells (uranium) or enclosed spaces like</p>



basements (radon). To ensure due diligence, we will conduct pre-blast surveys for all wells within 800 meters of the blasting area. This distance is a conservative measure, and if any impacts to well quality or quantity occur as a result of project operations, the proponent or contractor is responsible for drilling a new well.

Sixty-eight wells within 800 meters of the assessment area have been identified (we anticipate the number of wells within 800 meters of blasting will be significantly less than sixty-eight, if any). These wells are identified and characterized in the [Environmental Assessment \(EA\), Appendix D](#). The pre-blast surveys not only serve as a due diligence measure but also offer an opportunity to inform homeowners of any existing water quality issues.

In addition to the above response, we take comprehensive steps for watercourse and site management:

- Project personnel are educated on the sensitivity of aquatic habitats, emphasizing awareness and responsible practices.
- Proactive impact avoidance measures include marking and avoiding impact to watercourses and wetlands where possible.
- Certified installation and habitat enhancement ensure that crossing designs maintain natural flow and watercourse edges are revegetated for habitat enhancement.
- Wetland management and mitigation minimize impacts, adhering to alteration processes and compensating for lost habitat, implementing measures like crane matting during necessary travel.
- Comprehensive site management involves work scheduling during certain periods, development of erosion and sedimentation plans, and integration of water management systems. A site environmental specialist conducts audits to ensure compliance across the site.

Our commitment is to transparently address concerns and implement measures that prioritize environmental protection and community well-being throughout the project's lifecycle.

### **Spills and Contamination**

- What is the site action plan for the prevention and response to spills and contamination?

Our site action plan prioritizes the prevention of spills and contamination, employing industry-leading measures to safeguard the environment. This includes comprehensive training for our team, regular equipment maintenance, and the use of environmentally friendly materials. In the event of a spill, our response plan is swift and effective, involving containment, cleanup, and reporting protocols. We are dedicated to transparency and cooperation with regulatory bodies to ensure the highest standards of environmental protection are maintained throughout the project's lifecycle.

*It's worth noting that the Nordex platform chosen for the Bear Lake wind project utilizes an electric motor drive for pitching the wind turbine blades, as opposed to a hydraulic ram pitch system. This engineering shift has eliminated the potential release of hydraulic fluid at the Bear Lake wind project and provides a more environmentally friendly solution.*

[RES – Release Prevention and Response](#)